

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0039] on page 11 with the following amended paragraph [0039].

[0039] The synchronous oscillation of the piston 12 and the displacer 13 produces a compression/expansion cycle. Properly setting the phase difference of the oscillation permits a large amount of ~~head heat~~ to be produced by adiabatic compression in the compression space 45 and a large amount of cold to be produced by adiabatic expansion in the expansion space 46. Thus, the temperature in the compression space 45 rises, and the temperature in the expansion space 46 falls.